MICHIGAN REAL ESTATE PROFESSIONAL SURVEYORS LICENSING GUIDE

- 1. How the Profession Is Organized in Michigan
- 2. Eligibility for Licensing
- 3. Tests
- 4. Time and Costs
- 5. Other Careers and Credentials
- 6. Beyond Licensing
- 7. Important Links

1. HOW THE PROFESSION IS ORGANIZED IN MICHIGAN

OVERVIEW

This guide looks at things that you as a foreign-educated surveyor must do to become eligible for NCES testing and licensing in Michigan.

A professional surveyor may provide land surveying, geodetic surveying, and surveying for design and construction layout of an infrastructure.

REGULATING PROFESSIONAL SURVEYORS

The Bureau of Professional Licensing (BPL) within the Michigan Department of Licensing and Regulatory Affairs (LARA) regulates the practice of surveying in the state of Michigan. Before you can be eligible for licensure, you must meet certain training requirements and pass a Fundamentals of Surveying (FS) and Principles and Practice of Surveying (PS) examination administered through the National Council of Examiners for Engineering and Surveying (NCEES).

Note to firms: If a firm contracts to provide surveying services in Michigan, at least two-thirds of the principals of the firm need to be licensed in Michigan. If the firm will include principals who are not licensed, each of those unlicensed principals must file for approval with BPL.

A LONG PATH TO LICENSING

The professional surveying licensing process is complex and takes years - even for graduates of US colleges or universities offering bachelor of science degrees in land surveying. You may, however, be able to use education outside the US towards meeting the educational requirement.

Many people choose not to license. There are many challenging and well-paid careers in surveying that do not require it. Most graduates of US schools offering a land surveying degree go on to work in their fields of study, but never become Professional Surveyors. Whatever you decide about future licensing for your career, non-licensed positions are a way to first enter the field in the US. If you want to become licensed in the future, a non-licensed position can support you and your career goals during this long-term process. Some employers even support qualifying candidates with training or pay their licensing fees.

2. ELIGIBILITY FOR PROFESSIONAL SURVEYOR LICENSE

OVERVIEW OF LICENSING CRITERIA

The licensing process has the following steps:



I. EVALUATE YOUR FOREIGN DEGREE WITH THE NATIONAL COUNCIL OF EXAMINERS FOR ENGINEERING AND SURVEYING (NCEES)

If your university degree was in a surveying discipline, you must work with the National Council of Examiners for Engineering and Surveying (NCEES) to have it evaluated.

First, NCEES compiles information on your degree, including transcripts that must be sent directly from your university. If your materials are in a language other than English, you should check if your university will translate them and provide copies in English to NCEES. If this is not possible, you will need to have your own copy of your transcript translated and provide this to NCEES from another source. Verify with NCEES before to make sure what types of translation sources they will accept (e.g., university offices, consular offices, American Translator Association members).

Next, NCEES provides a course-by-course evaluation to be used to determine the educational requirements have been satisfied. The cost of the evaluation is \$400 which includes the evaluation to be sent to one entity/state.

Educational requirements include:

General Title	Representative Courses Which May Be Included	Semester Hours	Quarter Hours
Mathematics	analytic geometry, calculus, statistics	12	18
Humanities and Communications	English, speech, government, history, literature, philosophy, sociology	10	15
Law and Business	legal principles, Michigan surveying law, accounting, economics, business administration	10	15

Basic Science	physics, chemistry, geology, Astronomy, biology, dendrology	18	27
Further Development	computer science, remote sensing graphics, linear analysis	6	9
Engineering Science	statics, fluid mechanics, properties and mechanics of materials	8	12
Engineering	construction materials transportation, soils, hydraulics hydrology	13	20
Surveying	mensuration, operation of Instruments, practical astronomy, geodesy, topographic surveying, route surveying, boundary surveying, photogrammetry cartography, planning and design of land divisions, construction layout	30	45

II. MEET ANY COURSEWORK DEFICIENCIES IN YOUR DEGREE IDENTIFIED BY NCEES AND/OR BPL

Unfortunately, many of you will need to take additional classes before you can continue licensing. Here are a few strategies to consider:

- Community colleges are often a good option. They are usually more affordable than universities, closer to home, and offer evening and weekend classes.
- If you need math courses because your college transcripts only show advanced math such as Calculus II, keep things simple and save study time: take lower-level courses such as Trigonometry, Calculus I, or Differential Equations.
- If you need to take humanities courses, it may help your mindset to consider this a chance to get to know US culture and society better. You can pick courses and subjects that interest you, or ones you already feel familiar with, depending on the time you have to invest.

III. SHOW FOUR YEARS OF QUALIFYING EXPERIENCE UNDER A LEGALLY PRACTICING SURVEYOR

Michigan has approval requirements to take the FS exam which include meeting the educational requirements. To take the PS examination, you must also meet the experience requirements. Once approved for either examination, you need to register with NCEES at www.ncees.org.

As an immigrant professional who has worked in surveying in your home country, you will need to find out whether your professional experience counts as "qualifying experience" or whether you need to start again in the US workplace.

DOES YOUR PRIOR EXPERIENCE COUNT?

- You must be able to get documentation that shows the number of years you worked under the
 direct supervision of a legally practicing surveyor and actually had certain surveying
 responsibilities. Do not stop at documenting four years if you have more; there are two four-year
 periods of experience that need proof throughout the licensing process. You may be able to get a
 full eight years of credit and actually be found eligible to take the FS and PS exams immediately.
- You must be able to prove that you reported to a person who was legally practicing surveyor at the time. This could include someone licensed in your country.
- You cannot certify your own experience someone has to state he or she was the surveyor in charge.

HOW DO I EARN QUALIFYING EXPERIENCE IN THE US?

If you do not have a full four years of qualifying experience, then you will need to earn the rest of the four years in a US workplace. Again, you will need to work under a licensed surveyor and your work will have to include supervised surveying activities.

- Look for employment in a firm or other workplace with a professional surveyor on staff and get permission for the surveyor's participation in your program.
- You will have to document your work for the PS and receive his or her recommendation to meet the qualifying experience standards.
- Your exact job title is not relevant; you just need to work under a licensed surveyor with increasing responsibility.
- If you change employers and/or supervising surveyors over this four-year period, you must have all surveyors submit documentation to account for the full amount of qualifying experience.
- Once you have gathered all documentation, submit it together with the application for approval.

IV. APPLY FOR FUNDAMENTALS OF SURVEYING EXAM (FS)

Register for FS Exam:

Once you have satisfied the educational requirements and received approval by BPL to take the FS examination, you will need to register to take the FS exam by going to www.ncees.org.

V. PASS THE FS

The fundamentals of surveying exam (FS) is a national test that most US surveying students from accredited programs take in their senior year or shortly after graduation.

VI. WORK FOR 4 YEARS UNDER A PROFESSIONAL SURVEYOR FOR QUALIFYING EXPERIENCE

The goal is to help you continue to develop your skills under the supervision of a licensed surveyor. If you have additional qualifying experience that was not counted in Step 3, it will be used here towards the four year requirement.

VII. APPLY FOR EXAMINATION FOR LICENSURE AS A PROFESSIONAL SURVEYOR (PRINCIPLES AND PRACTICE OF SURVEYING EXAM, PS/PART IIA)

Once you have satisfied the experience requirements and received approval by BPL to take the PS examination, you will need to register to take the PS exam by going to www.ncees.org.

VIII. APPLY FOR EXAMINATION FOR LICENSURE AS A PROFESSIONAL SURVEYOR (PRINCIPLES AND PRACTICE OF SURVEYING EXAM, PS/PART IIB)

Once you have satisfied the education and experience requirements and received approval by BPL to take the PS/Part IIB examination, you will need to register to take the exam by going to www.psiexams.com.

A. Application:

Upon completion of your education and experience training and prior to taking the Principles and Practice of Surveying (PS) examination, you must submit an online application at www.michigan.gov/mylicense. At the end of the application, a fee of \$85 must be paid by credit or debit card (the card must have a Visa or MasterCard logo).

VIII. PASS THE PS/PART IIA AND PS/PART IIB EXAMS AND RECEIVE LICENSURE AS A PROFESSIONAL SURVEYOR

The PS/Part IIA and PS/Part IIB exams will be discussed in detail in the next section. Once you have passed both exams, you will be granted licensure as a Professional Surveyor in the state of Michigan. Your surveyor license must be renewed every 2 years. Please refer to the section *Beyond Licensing* for basic information on requirements to maintain licensure.

3. Tests

FUNDAMENTALS OF SURVEYING EXAM

The Fundamentals of Surveying Exam (FS) tests the knowledge that is expected of recent university graduates and students close to finishing an undergraduate degree for general surveying concepts and other specific surveying disciplines.

The examination is offered year-round and is administered by the National Council of Examiners for Engineering and Surveying (NCEES). Information regarding this exam can be found on NCEES website at www.ncees.org.

The FS examination is 6 hours long consisting of 110 multiple-choice questions covering the following subject areas:

- Mathematics
- Basic Sciences
- Spatial Data Acquisition and Reduction

- Survey Computations and Computer Applications
- Statistics and Adjustments
- Geodesy
- Boundary and Cadastral Survey Law
- Photogrammetry and Remote Sensing
- Survey Processes and Methods
- Geographic Information Systems (GIS)
- Graphical Communication and Mapping
- Professional Communication
- Business Concepts

THE PRINCIPLES AND PRACTICE OF SURVEYING EXAM (PS/PART IIA)

The Principles and Practice of Surveying Exam (PS/Part IIA) tests your ability to practice the surveying profession competently. It is designed for surveyors who have gained at least four years' experience. The PS/Part IIA exam consists of 100 multiple-choice questions lasting 6 hours which is split between a 4-hour morning session and a 2-hour afternoon session. The PS exam is offered two times a year, in April and October with registration opening several months in advance.

The Principles and Practice of Surveying (PS) Exam is a closed-book exam. The *PS Reference Handbook* is the only material you may use in the exam room. You will not be allowed to bring your personal copy of the *Handbook* with you to the exam, but a proctor will provide one at the site.

THE PRINCIPLES AND PRACTICE OF SURVEYING EXAM (PS/PART IIB)

The Principles and Practice of Surveying Exam (PS/Part IIB) is a Michigan-only examination administered by PSI Services, LLC (PSI). The examination is 4 hours consisting of 140 multiple-choice questions consisting of the following areas:

- Michigan Laws
- Principles of the Profession
- Public Land Surveying Systems in Michigan
- Property Surveys, Descriptions and Legal Implications
- Special Surveying

Candidates are permitted to bring hand-held, battery-operated or self-powered, silent, non-printing calculators (with trig function) that DO NOT require an electrical outlet. Slide rules and/or abacus are also allowed.

4. Time and Costs

FACTORS THAT CAN INFLUENCE TIME AND COST OF PROCESS

Evaluating your foreign degree and achieving licensing as a professional surveyor in Michigan depends on many factors:

- The completeness of your educational and professional records (the more documentation, the better).
- The size of the gap between your surveying degree and US accreditation standards.
- Your performance on FS, PS/Part IIA, PS/Part IIB licensing exams and their timing.

- Your access to employment that can bring you necessary qualifying experience.
 Your free time and what you can afford to spend on licensing.

We provide two hypothetical scenarios to show some of the variety of results that immigrant professionals may find when they seek to become professional surveyors in Michigan. Please consider these scenarios as two examples out of many possibilities. Your experience will vary.

TWO POSSIBLE SCENARIOS FOR PROFESSIONAL SURVEYOR LICENSING:

Step	More Efficient Scenario Approximate Time and Cost	Less Efficient Scenario Approximate Time and Cost	
1 Degree Evaluation	Your university documents arrive to the credentialing organization within one month	It takes 4 months for your documents to arrive to NCEES	
	 The original documents are in English, so no translation is needed 2 months + \$400 	 Your documents must be translated 6 months + \$650 	
	·		
2 Satisfy Education Deficiency	 You have a Bachelor of Science degree in surveying and documented qualifying professional experience You only have to take 3 university courses (9 credit hours) before being eligible to sit for the FS exam You pass it on the first try 6 months + \$2,725 	 Your degree equivalency lacks 12 courses (36 credit hours) 3 years + \$10,000 	
3 4 years of qualifying experience	 You have 4 years of documented qualifying professional experience No additional time 	 You are granted only 1 year of qualifying professional experience from your home country You work full time while attending classes, completing your qualifying professional experience and coursework in 3 years 	

Step	More Efficient Scenario Approximate Time and Cost	Less Efficient Scenario Approximate Time and Cost	
		3 years	
4 Submit application and pass the FS exam	 You pass both FS exam on the first try 6 months + \$310 	 You pass both FS exam on the first try 6 months + \$310 	
5 4 years qualifying experience	 Your current employment is in the your surveying field You are able to arrange supervision of your work by a legally practicing surveyor 4 years 	 Changing jobs, you work for 5 years to gain 4 years of qualifying experience 5 years 	
6 Submit licensing application to take PS/Part IIA and PS/Part IIB exams	You receive a recommendation from that supervisor for your qualifying experience You pass your PS/Part IIA and PS/Part IIB exam with just a few months' preparation 6 months + \$446	 You take the test but fail the first time After taking a preparation class, you pass the second attempt 1 year, 2 months + \$1,100 	
_	More Efficient Total About 6 years + \$3,881	Less Efficient Total About 13.5 years + \$12,060	

5. Other Careers and Credentials

Preparing for licensing takes a significant amount of time, money, and effort. Some professionals choose to seek lower-level positions in surveying to help them meet longer-term licensing goals. If you take a job with fewer responsibilities but with access to a supervising surveyor, you may find some distinct advantages. These include the ability to build job security, polish technology skills and adapt to the US workplace culture in a lower-pressure environment, and to have more energy left over to focus on preparing for licensing exams. You should be honest with your employer about your long-term plans and be sure that they understand how you can contribute to their company's objectives.

6. Beyond Licensing

SETTING UP YOUR BUSINESS

If you plan to have your own surveying business, it is important to know that you may have to register your firm. This is not required if you plan to do business under "Your Name, PS" and work alone (in what is called a sole proprietorship). However, if you plan to do business by another name or to include others in your practice you will need to license. Information is available on BPL's website.

MAINTAINING LICENSURE

Once you are licensed as a professional surveyor you must maintain your Michigan license by renewing it every 2 years. The license expires October 31 two years after the initial license and every two years that follow. You will be notified in the mail and can renew on BPL's website using online payment.

As a condition of license renewal, an individual licensed as a professional surveyor in Michigan shall complete continuing education hours. A licensee who holds a license for more than 12 months, but less than 24 months from the date of initial licensure shall obtain 15 hours of continuing education for the first renewal period. A licensee who holds a license for 24 months or more from the date of initial licensure shall obtain 30 hours of continuing education for the renewal period. Professional associations often provide continuing education and are a good starting point for researching CE options.

RENEWAL VS. RESTORATION

Be careful to observe your renewal notices and keep your address updated. To restore an expired license requires more documentation, fees, and sometimes, coursework. To keep informed of regulation requirements and update your skills, you may consider joining a professional association.

LICENSING MOBILITY (RECIPROCITY)

Some people with a professional surveying license from one state want to practice surveying in another state. The autonomy of each state's professional regulation creates differences that complicate licensing mobility. The state of Michigan does not participate in any agreements with other states and individuals who wish to be licensed must complete an application and meet Michigan's licensing requirements.

If you are a recognized professional surveyor from another state and are seeking to practice engineering in Michigan, you must:

- Show that your education, experience, and NCEES examinations meet all Michigan eligibility criteria for licensing as a professional surveyor.
- Take and pass the PS/Part IIB examination.
- Apply for and receive a Michigan license in addition to your existing license.

Conversely, when Michigan professional surveyors want to work in other states, they must research and meet the licensing guidelines of their destination state. Some employers see the value in helping their surveyors with licensing mobility when their business crosses state boundaries.

7. Important Links

Common words used in this article:

Е

Endorsement

Licensure by endorsement is the method used for engineers in Illinois. When a person licensed in another state seeks to practice in Illinois, their application for licensure by endorsement is approved if the state of Illinois determines that the licensing requirements for the person's initial licensure meet or exceed Illinois licensing standards.

R

Reciprocity

An agreement between states in which the licenses and credentials of one state are accepted for professional practice in another state. For example, a nurse in the state of X can also work as a nurse in the states of Y and Z without any new training or tests.

Т

Transcript

Your university's official record of the subjects you studied and your grades.

FOREIGN DEGREE EVALUATION:

• The <u>National Council of Examiners for Engineering and Surveying (NCEES)</u> is the credential evaluation service for foreign-educated surveyors accepted by the state of Michigan

REGULATION:

The Michigan <u>Bureau of Professional Licensing</u> is the state regulatory agency for the
professional surveyors in Michigan. The website specifically for the professional surveyors is
<u>www.michigan.gov/surveyors</u>, which includes useful information with links to forms and
applications.

TESTING:

- The <u>National Council of Examiners for Engineering and Surveying (NCEES)</u> has a wealth of information about exams including test preparation materials
- NCEES Exams Section with important site links to both FS and PS/Part IIA exam information
- FS and PS/Part IIA testing dates and registration information
- FS Supplied-Reference Handbook contains equations and data you will need for the exam
- PSI Candidate Information Brochure (CIB) for information regarding the PS/Part IIB exam